

CLAIMS

- [c1] 1. A method in a computer system for reconfiguring a path between a source node and a destination node, the method comprising:
establishing a first path between the source node and the destination node,
the path having a virtual address;
providing the virtual address to the source node for use in transmitting data
from the source node to the destination node via the established
path; and
after providing the virtual address to the source node, establishing a
second path between the source node and the destination node so
that when the source node transmits data using the provided virtual
address the data is transmitted via the second path rather than via
the first path.
- [c2] 2. The method of claim 1 wherein the establishing of the second path
is performed transparently to the source node.
- [c3] 3. The method of claim 1 wherein the path is established through a
network of switches.
- [c4] 4. The method of claim 1 wherein the path is established through
switches with ports and wherein the establishing of a path includes identifying a
source-side port and a destination-side port for each switch.
- [c5] 5. The method of claim 4 wherein the establishing of the path includes
providing the virtual address to each source-side port of a switch in the path.

- [c6] 6. The method of claim 5 wherein the virtual address of source-side port is used to map the source-side port to the destination-side port of the switch.

- [c7] 7. The method of claim 1 including identifying a virtual address for sending data from the source node to the destination node, the identified virtual address being provided to the source node.

- [c8] 8. The method of claim 7 wherein the identified virtual address is not currently used by any source-side ports of the switches.

- [c9] 9. The method of claim 7 wherein each port of each switch has a virtual address table for mapping virtual addresses to another port of the switch.

- [c10] 10. The method of claim 1 wherein when data is received at a port of a switch, the virtual address of the data is used to retrieve an indication of another port and the data is sent out of the switch through the other port.

- [c11] 11. The method of claim 1 wherein the establishing of path from the source node to the destination node includes identifying a source-side port and a destination-side port of each switch in the path.

- [c12] 12. The method of claim 1 wherein the data is a Fibre Channel frame.

- [c13] 13. The method of claim 1 wherein the switches are Fibre Channel compatible.

- [c14] 14. The method of claim 1 wherein the switches are interconnect fabric modules.

- [c15] 15. A computer system for reconfiguring a path between a source node and destination nodes, comprising:
a component that establishes a first path between the source node and a first destination node, the path having a virtual address, the first path being identified by a virtual address, so that when the source node transmits data using the virtual address, the data is transmitted via the first path; and
a component that, after establishing the first path, establishes a second path between the source node and a second destination node, the second path being identified by the virtual address so that when the source node transmits data using the provided virtual address after the second path is established, the data is transmitted via the second path.
- [c16] 16. The computer system of claim 15 including:
a component that provides the virtual address to a source node for use in transmitting data via the first path before the second path is established and via the second path after the second path is established.
- [c17] 17. The computer system of claim 15 wherein the establishing of the second path is performed transparently to the source node.
- [c18] 18. The computer system of claim 1 wherein the path is established through a network of switches.
- [c19] 19. The computer system of claim 15 wherein the paths are established through switches with ports and wherein the establishing of a path includes identifying a source-side port and a destination-side port for each switch in the path.

- [c20] 20. The computer system of claim 19 wherein the virtual address is used by source-side ports to map the source-side port to the destination-side port of the switch.
- [c21] 21. The computer system of claim 15 including:
a component that identifies a virtual address for sending data from the source node to a destination node, the identified virtual address being provided to the source node.
- [c22] 22. The computer system of claim 21 wherein the identified virtual address is not currently used by any source-side ports of the switches.
- [c23] 23. The computer system of claim 21 wherein each port of each switch has a virtual address table for mapping virtual addresses to another port of the switch.
- [c24] 24. The computer system of claim 15 wherein when data is received at a port of a switch, the virtual address of the data is used to retrieve an indication of another port and the data is sent out of the switch through the other port.
- [c25] 25. The computer system of claim 15 wherein the data is a Fibre Channel frame.
- [c26] 26. The computer system of claim 15 wherein the data is an InfiniBand frame.
- [c27] 27. The computer system of claim 15 wherein the first destination node and the second destination node are different nodes.

[c28] 28. The computer system of claim 15 wherein the first destination node and the second destination node are the same node.

[c29] 29. A computer system for reconfiguring a path between a source node and a destination node, comprising:
means for establishing a first path between the source node and the destination node, the path having a virtual address; and
means for establishing a second path between the source node and the destination node so that data transmitted using the virtual address is routed via the first path before the second path is established and via the second path after the second path is established.

[c30] 30. The computer system of claim 29 including:
means for providing the virtual address to the source node for use in transmitting data to the destination node.

[c31] 31. The computer system of claim 29 wherein the establishing of the second path is performed transparently to the source node.

[c32] 32. The computer system of claim 29 wherein the path is established through a network of switches.

[c33] 33. The computer system of claim 32 wherein the paths are established through switches with ports and wherein the means for establishing of a path includes identifying a source-side port and a destination-side port for each switch in the path.

[c34] 34. The computer system of claim 33 wherein the virtual address is used by source-side ports to map the source-side port to the destination-side port of the switch.

[c35] 35. The computer system of claim 32 wherein the switches are interconnect fabric modules.

[c36] 36. The computer system of claim 29 including:
means for identifying a virtual address for sending data from the source node to the destination node and means for providing the virtual address to the source node.

[c37] 37. The computer system of claim 36 wherein the identified virtual address is not currently used by any source-side ports of switches of the path.

[c38] 38. The computer system of claim 36 wherein each port of each switch has a virtual address table for mapping virtual addresses to another port of the switch.

[c39] 39. The computer system of claim 29 wherein the path comprises switches with ports and when data is received at a port of a switch, the virtual address of the data is used to retrieve an indication of another port and the data is sent out of the switch through the other port.

[c40] 40. The computer system of claim 29 wherein the data is a Fibre Channel frame.

[c41] 41. The computer system of claim 29 wherein the data is an InfiniBand frame.